

USSN 10/590,136

Reply to Non-Final Office Action dated 7/20/09

Customer No. 00027683

Atty. Dkt. No. 36689.259

1. AMENDMENTS TO THE CLAIMS (LISTING OF CLAIMS):

DO NOT ENTER: /C,H/

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An isolated polynucleotide comprising:

- (a) an isolated HSV LAT enhancer element that consists essentially of a contiguous nucleotide sequence from about nucleotide 118,975 to about nucleotide 120,471 of SEQ ID NO:109, SEQ ID NO:110, or SEQ ID NO:111;
- (b) a first isolated LAT insulator/boundary region that consists essentially of a contiguous nucleotide sequence from about nucleotide 8365 to about nucleotide 9273 of SEQ ID NO:109, SEQ ID NO:110, or SEQ ID NO:111, operably positioned upstream of ~~said~~the isolated LAT enhancer element; and
- (c) a second isolated LAT insulatory/boundary region that consists essentially of a contiguous nucleotide sequence from about nucleotide 120,208 to about nucleotide 120,940 of SEQ ID NO:109, SEQ ID NO:110, or SEQ ID NO:111, operably positioned downstream of ~~said~~the isolated LAT enhancer element.

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2-8. (Canceled)

9. (Currently Amended) The isolated polynucleotide of claim 1, further comprising: (d) at least a first promoter region operably positioned upstream of ~~said~~the LAT enhancer element, and downstream of ~~said~~the first LAT insulator/boundary region.

10. (Currently Amended) The isolated polynucleotide of claim 9, wherein ~~said~~the promoter region comprises an HSV LAP1 promoter.

11-13. (Canceled)

14. (Currently Amended) The isolated polynucleotide of claim [[13]]9, wherein ~~said~~the first promoter region comprises an HSV LAP1 promoter that consists essentially of a sequence region of from about nucleotide 117,938 to about 118,843 of ~~said HSV LAP1 promoter~~any one of SEQ ID NO:109, SEQ ID NO:110, and SEQ ID NO:111.

15. (Currently Amended) The isolated polynucleotide of claim 14, wherein ~~said~~the first promoter region comprises an HSV LAP1 promoter that consists of a sequence region of from about nucleotide 117,938 to about 118,843 of ~~said HSV LAP1 promoter~~any one of SEQ ID NO:109, SEQ ID NO:110, and SEQ ID NO:111.

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16-26.(Canceled)

27. (Currently Amended) The isolated polynucleotide of claim 1, further comprising at least a first multiple cloning region operably positioned downstream of ~~said~~the first LAT insulator/boundary region and upstream of ~~said~~the LAT enhancer element.
28. (Currently Amended) The isolated polynucleotide of claim 27, wherein ~~said~~the first multiple cloning region further comprises a nucleic acid sequence that encodes a promoter or an enhancer sequence that is expressed in a mammalian host cell.
29. (Currently Amended) The isolated polynucleotide of claim 27, further comprising at least a second multiple cloning region operably positioned upstream of ~~said~~the second LAT insulator/boundary region and downstream of ~~said~~the LAT enhancer element.
30. (Currently Amended) The isolated polynucleotide of claim 29, wherein ~~said~~the second multiple cloning region further comprises at least a first nucleic acid sequence that encodes a therapeutic agent.
31. (Currently Amended) The isolated polynucleotide of claim 30, wherein ~~said~~the second multiple cloning region further comprises a nucleic acid sequence that encodes at least a first therapeutic agent selected from the group consisting of a peptide, a polypeptide, a ribozyme, a catalytic RNA molecule, an antisense oligonucleotide, and an antisense polynucleotide.

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32-45. (Canceled)

46. (Previously Presented) A viral vector, virion, or plurality of viral particles that comprises the isolated polynucleotide of claim 1 or claim 73.

47. (Currently Amended) The viral vector, virion, or plurality of viral particles of claim 46, wherein saidthe vector, virion, or plurality of viral particles is of retroviral, adenoviral, adeno-associated viral, or a herpes viral origin.

48. (Previously Presented) The viral vector, virion, or plurality of viral particles of claim 47, comprising a gutless HSV vector, a gutless AV vector, a gutless AAV vector, a recombinant HSV vector, a recombinant AV vector, or a recombinant AAV vector.

49-50. (Canceled)

51. (Currently Amended) An isolated mammalian host cell that comprises:

(a) the isolated polynucleotide of claim 1 or claim 73; or

(b) the viral vector, virion, or plurality of viral particles that comprises the isolated polynucleotide of claim 461 or claim 73.

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52-53. (Canceled)

54. (Currently Amended) A pharmaceutical composition comprising:

(a) the isolated polynucleotide of claim 1 or claim 73[[,]]; or

(b) thea viral vector, virion, or plurality of viral particles that comprises the isolated polynucleotide of claim 1 or claim 73of claim 46.

55-71. (Canceled)

72. (Currently Amended) A recombinant viral vector comprising ~~an~~the isolated polynucleotide ~~that comprises:~~

(a) ~~an isolated HSV LAT enhancer element, that comprises a contiguous nucleotide sequence from about nucleotide 118,975 to about nucleotide 120,471 of an HSV LAT 5;~~

(b) ~~a first isolated LAT insulator/boundary region, that comprises a contiguous nucleotide sequence from about nucleotide 8365 to about nucleotide 9273 of HSV1, operably positioned upstream of said isolated LAT enhancer element;~~
and

(c) ~~a second isolated LAT insulatory/boundary region, that comprises a contiguous nucleotide sequence from about nucleotide 120,208 to about~~

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~~nucleotide 120,940 of HSV1, operably positioned downstream of said
isolated LAT enhancer element of claim 1.~~

73. (Currently Amended) An isolated polynucleotide that comprises:

- (a) an isolated HSV LAT enhancer element, consisting essentially of a contiguous nucleotide sequence from about nucleotide 118,975 to about nucleotide 120,471 of ~~an HSV LAT 5-exon~~any one of SEQ ID NO:109, SEQ ID NO:110, and SEQ ID NO:111;
- (b) a first isolated LAT insulator/boundary region, consisting essentially of a contiguous nucleotide sequence from about nucleotide 8365 to about nucleotide 9273 of ~~HSV1~~any one of SEQ ID NO:109, SEQ ID NO:110, and SEQ ID NO:111, operably positioned upstream of ~~said~~the isolated LAT enhancer element; and
- (c) a second isolated LAT insulatory/boundary region, consisting essentially of a contiguous nucleotide sequence from about nucleotide 120,208 to about nucleotide 120,940 of ~~HSV1~~any one of SEQ ID NO:109, SEQ ID NO:110, and SEQ ID NO:111, operably positioned downstream of ~~said~~the isolated LAT enhancer element.

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74. (Currently Amended) The isolated polynucleotide of claim 73, further comprising a first promoter region operably positioned upstream of ~~said~~the LAT enhancer element, and downstream of ~~said~~the first LAT insulator/boundary region.
75. (Currently Amended) The isolated polynucleotide of claim 74, wherein ~~said~~the first promoter region consists ~~essentially~~ of a sequence region of from about nucleotide 117,938 to about 118,843 of an ~~HSV-LAP1 promoter~~ any one of SEQ ID NO:109, SEQ ID NO:110, and SEQ ID NO:111.